

REMARKS

Claims 1-12 are pending in the application.

Claims 1-5 and 11 are rejected and claims 6-10 and 12 are objected to.

Claim 13 has been newly added. Claim 13 includes the features of the previous claim 1 and allowable claim 8. Claim 13 is in condition for allowance.

Claim 14 has been newly added. Claim 14 includes the features of the previous claim 1 and allowable claim 12. Claim 14 is in condition for allowance.

Claim 1, has been amended to clarify the claimed invention. Claims 9 and 10 have been amended to correct a typographical error. No new matter is entered.

Applicant's claimed invention relates to a packet switch which has a plurality of scheduler sections (α scheduler sections) which are configured so as to be operated independently from each other and in parallel at the same time. An appropriate number of scheduler sections are provided in consideration of the number of N input lines, whereby packets are received through N input lines and are transmitted to any output line among M output lines.

In the claimed invention, input buffers are provided in accordance to the N input lines, each of the input buffer transmits a request to a scheduler section selected from α scheduler sections while storing the input packets. In one example the input packets are stored separately according to the destination thereof.

Examples of the claimed invention include applicant's specification Figs. 1, 2 and 3 and from the first line of page 9 to line 17 of page 12 of the specification, and in Fig. 5 and from line 14 of page 16 to line 23 of page 18 of the specification.

Claims 1-14 are rejected under 35 U.S.C. §102(e) as being anticipated by Suzuki et al.

(U.S. 6,813,274) (Suzuki). It is submitted that the claims are incorrectly listed since the Examiner indicated 6-10 and 12 were allowable and since there were only 12 claims.

In Suzuki the output ports of the cross-bar switch are divided into groups with schedulers for every group. The schedulers are operated in parallel and independent from each other. Namely, Suzuki's schedulers are operated in parallel on the condition that each destination of the packets (output port) of each scheduler are different from each other.

In reviewing the corresponding descriptions of Fig. 4 starting at line 58 in col. 8 through col. 9 line 43 the reference describes that scheduler 1 schedules switching for the input buffer group 1 for each input line and scheduler 2 schedules switching for the input buffer group 2 for each input port. Also in col. 4, lines 57-64 it is described that an input port may be granted requests to send two packets at one time: one packet from the first input buffer group to the first output port group, and a second packet from the second input buffer group to the second output port group.

In Suzuki the schedulers each have their own set of output buffers which they schedule.

In contrast applicant claims the results of scheduling processes by said α scheduler sections are cyclically used at a timing different with each other. Suzuki's invention is concerned with the scheduler's operating concurrently and independently, while applicant's claimed schedulers operate independently the results of scheduling processes are cyclically used at a timing different with each other in contrast to Suzuki. who do not teach this feature.

In general the purpose of invention of Suzuki is an improvement of throughput for packet transmission in cross-bar switch. Suzuki's schedulers are operated in parallel on the condition that each destination of the packets (output port) of each scheduler are different from each other, thus in one aspect it can't be said that they are operated independently unconditionally (unrelated

to each other). For an example, the invention of Suzuki et al. can't process two packets of which destinations are output ports in a same group at the same time.

Instead, it is possible to process the packets of which destinations are output ports in different groups independently and in parallel by the plural of the schedulers, in the configuration of the invention of Suzuki.

As described above, there is a significant difference between applicant's claimed invention and Suzuki in their configurations.

Additional point:

Applicant's claimed invention has the advantage that each of the scheduler performs scheduling process for all output ports. Therefore, it is possible to increase the number of schedulers as required according as the number of the input lines are increased even in case where the minimum number of the schedulers are provided in the beginning, for an example. Also, the redundant configuration can be realized by assigning one scheduler for n schedulers as standby schedulers in common. Concerning to this point, the details are shown in Figs. 15-20 and from line 17 of page 27 to line 9 of page 37 of the specification of the present invention.

On the contrary, in the invention of Suzuki the schedulers are configured in dependence on division of the output ports into groups. Therefore, for realizing load-distribution of the increase of the number of the packets to be processed according to the increase of the number of the input lines, it is required to reconstruct each scheduler by increasing the total number of the schedulers by dividing the output ports into groups. It is impossible to deal with the above situation by simple increasing the number of the schedulers.

Further, it is impossible to realize the redundant configuration by assigning one scheduler for n schedulers as standby schedulers in common. It is why the output port of which the each

scheduler's destination is different from each other, therefore it is impossible to be provided with the schedulers having common function (the function of transmission a packet to an optional output port as the present invention) previously.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,



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